

Claims

1. A vehicle (2), especially a coupe or convertible vehicle, with a B-pillar (10), a side-sill arrangement (8), into which the B-pillar (10) extends, and a transverse reinforcement (16) that extends in the transverse direction to above the side-sill arrangement (8) and adjacent to a lower end of the B-pillar (10), characterized in that a plate-like impact element (22), arranged in the longitudinal direction and upright, is connected on an inside (29) to a front end (28) of transverse reinforcement (16).
2. A vehicle according to Claim 1, characterized in that the front end (28) of the transverse reinforcement (16) is arranged in the direction of travel in front of or behind the B-pillar (10).
3. A vehicle according to Claim 1 or 2, characterized in that the front end (28) of the transverse reinforcement (16) at least partially penetrates the B-pillar (10) or vice versa.
4. A vehicle according to one of the preceding claims, characterized in that the front end (28) of the transverse reinforcement (16) protrudes in the lateral direction above an outside (32) of the B-pillar (10), so that the inside (29) of the impact element (22) has a spacing (d) from the outside (32) of B-pillar (10).
5. A vehicle according to one of the preceding claims, characterized in that a lower edge (30) of the impact element (22) is connected to the side-sill arrangement (8).
6. A vehicle according to one of the preceding claims, characterized in that a lower edge (30) of the impact element (22) is arranged supported against an outside of the side-sill arrangement (8).

7. A vehicle according to one of the preceding claims, characterized in that the impact element (22) at least partially covers the front end (28) of the transverse reinforcement (16) in the B-pillar (10) in the longitudinal direction.
8. A vehicle according to one of the preceding claims, characterized in that an outer surface (27) of the impact element is arranged vertically or sloped outward above a vertical position, especially at an angle ( $\alpha$ ) to the vertical in the range from 2° to 20°, especially 10°.
9. A vehicle according to Claim 8, characterized in that a slope angle ( $\alpha$ ) of the impact element (22) upward increases or decreases, and is especially adapted to an outer shell contour (18) of the vehicle.
10. A vehicle according to one of the preceding claims, characterized in that the impact element (22) extends to a height of about 60 cm above the ground.
11. A vehicle according to one of the preceding claims, characterized in that the impact element has an essentially horizontal upper edge.
12. A vehicle according to one of the preceding claims, characterized in that the impact element (22) is bonded and/or shape-fitted with the transverse reinforcement (16), and optionally connected to the side-sill arrangement (8).
13. A vehicle according to one of the preceding claims, characterized in that the impact element (22) is designed as a plate made of a solid material, such as (light) metal.
14. A vehicle according to one of the Claims 1 to 12, characterized in that the impact element (22) is designed as a plate-like composite part.

15. A vehicle according to Claim 14, characterized in that the impact element (22) has an inner shell (40), an outer shell (42), and a reinforcement structure (44) arranged between them.
16. A vehicle according to Claim 15, characterized in that the impact element (22) is designed as a honeycomb sheet, in which the inner and outer shells (40, 42) consist of sheet metal and the reinforcement structure (44) consists of sheet metal angled in a zigzag manner.
17. A vehicle according to Claim 15, characterized in that the impact element (22) is designed as a honeycomb sheet in which the inner and outer shells are formed from sheet metal and the reinforcement structure is designed in the form of honeycomb elements extending in the transverse direction.
18. A vehicle according to one of the preceding claims, characterized in that the transverse reinforcement (16) extends between two B-pillars (10) and side-sill arrangements (8) of the vehicle and is provided on both sides with an impact element according to one of the preceding claims.